

# A digital tool to differentiate between a reduced and a non reduced violin

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The morphology of today's violin differs greatly from that of the first instruments of the late 16th century. Indeed, in order to meet the standards suggested by famous orchestras and conservatories, many ancient violins have been reduced. It is important for musicologists and organologists to analyse the alterations they have undergone. Specialists agree that the instruments have been reshaped, but have difficulty to prove it rigorously. Moreover, the historical testimonies about this process are imprecise. It is therefore necessary to find an objective way to quantify violin geometry. In this talk I will explain how we have developed an IT tool that allows to locate the minima and inflection points relatively well on a violin body and to identify the shape of its contour lines. We will illustrate these differences between a reduced violin and an unreduced violin. I will then show how we wish to extend our instrument distinction approach to a larger corpus with 3D geometric analysis.